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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mark T. Holtzapple

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23505

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02/23/2010

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EXAMINER

BEISNER, WILLIAM H

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

02/23/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pathou@conleyrose.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,199	<b>Applicant(s)</b> HOLTZAPPLE ET AL.	
	<b>Examiner</b> WILLIAM H. BEISNER	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2009 and 19 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-43 is/are pending in the application.
- 4a) Of the above claim(s) 25-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-21, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/12/09</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, Claims 1-24, in the reply filed on 3/9/2007 is acknowledged.
2. Claims 25-43 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/9/2007.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-8, 10-21, 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1 and 12 recite "the system is configured to sequentially subject the biomass to oxidative lime pretreatment and anaerobic fermentation in the formed enclosure". However, the metes and bounds of the claim cannot be clearly determined from this claim language. It is not clear if further structural elements are encompassed by this claim language or merely a statement of intended use of the previously recited elements in the claim.

### ***Claim Rejections - 35 USC § 103***

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624) and Chynoweth et al.(US 5,269,634).

With respect to claim 1, the reference of Marelius et al. discloses a biomass processing system that includes a water-impermeable bottom liner (2); a porous structure (4, see page 11, lines 25-30) supported by the bottom liner (2), the porous structure operable to allow flow relatively freely therethrough while preventing the passage of solids; a drain pipe (4, see page 11, lines 25-30) disposed adjacent the porous structure; a distribution pipe (11,12,13) located proximate to the porous structure; a biomass input device operable to deliver biomass over the porous structure to form a biomass pile (See the buck loader on page 6, lines 9-12); a cover (5,6) operable to allow the biomass to undergo an anaerobic fermentation; and a pump (19) operable

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to circulate water through the biomass by delivering water to the distribution pipe (11,12,13) and receiving water from the drain pipe after it has traveled through the biomass pile (See Figure 2).

Claim 1 differs by reciting that the system includes a lime input device operable to deliver lime to the porous structure.

The reference of Larson discloses that it is known in the art to provide the liquid distribution system in a biomass treatment system with a structure (50) for adding chemical supplements to the liquid distribution system.

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the system of the primary reference with a chemical addition system as taught by the reference of Larson for the known and expected result of controlling the pH of the liquid added to the biomass material. It is noted that the structure (50) of Larson is capable of holding and/or adding lime to the water introduced into the biomass pile.

Claim 1 further differs by reciting that the system includes an air blower and distribution pipe for delivering air to the biomass material.

The reference of Chynoweth et al. discloses that it is known in the art of anaerobic composting to aerobically treat the waste pile with air when the methane production has been exhausted (See column 23, lines 15-45).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to aerate the waste pile of the modified primary reference for the known and expected result of further maturing the waste material as suggested by the reference of Chynoweth et al. While the reference only discloses that "air is injected through the underdrain", one of ordinary skill in the art would have recognized that an air blow and distribution pipe would be required and obvious

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for the known and expected result of injecting air into the waste material as suggested by the reference of Chynoweth et al.

In the absence of further positively recited structure, the system of the modified primary reference is considered to be structurally capable of sequentially subjecting the biomass to oxidative lime pretreatment and anaerobic fermentation in the formed enclosure since it includes all of the positively recited structures in claim 1.

With respect to claims 2 and 3, the system of the modified primary reference discussed above is capable of holding a lignocellulosic biomass as recited in claims 2 and 3.

With respect to claim 4, the porous structure is a gravel layer (See page 11, line 29).

With respect to claims 5 and 6, the chemical input device (50) suggested by the reference of Larson would be structurally capable of being operated in the manner recited in claims 5 and 6.

With respect to claim 7, the reference of Marelius et al. discloses reconditioning the leaching water with respect to bacteria-content (See page 6, lines 16-22) which meets the structure of an inoculum input device.

With respect to claim 8, the reference of Marelius et al. discloses the use of heat exchanger (31) to control the temperature of the water delivered to the distribution pipe.

With respect to claim 11, the reference of Marelius et al. discloses adding calcium carbonate to the water delivered to the biomass material (See page 6, line 32).

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8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624) and Chynoweth et al.(US 5,269,634) taken further in view of Young et al.(US 5,591,635) and Lynn (US 3,973,043).

The combination of the references of Marelius et al., Larson and Chynoweth et al. has been discussed above.

Claim 10 differs by reciting that the system includes a gas scrubber for contacting the air delivered to the biomass pile with lime water slurry so as to remove carbon dioxide from the air.

The reference of Young et al. discloses that it is known in the art of biomass processing to control the carbon dioxide content of the aeration gas using a carbon dioxide scrubber (See column 5, line 56, to column 6, line 10).

The reference of Lynn discloses that it is known in the scrubbing art to employ lime water to remove carbon dioxide from a gas stream (See column 6, lines 5-16).

In view of these teachings, it would have been obvious to one of ordinary skill in the art to provide the system of the modified primary reference with a carbon dioxide scrubbing device for the known and expected result of controlling the carbon dioxide content of the aeration gas. The use of a lime-slurry would have been obvious for the known and expected results of employing an art recognized means for scrubbing carbon dioxide from a gas stream.

9. Claims 12-14, 19-21, 24 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Chynoweth et al.(US 5,269,634), Furuta (JP 08-245285) and Wildenauer (US 4,758,344).

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With respect to claim 12, the reference of Marelius et al. discloses a biomass processing system that includes a water-impermeable bottom liner (2); a porous structure (4, see page 11, lines 25-30) supported by the bottom liner (2), the porous structure operable to allow flow relatively freely therethrough while preventing the passage of solids; a drain pipe (4, see page 11, lines 25-30) disposed adjacent the porous structure; a distribution pipe (11,12,13) located proximate to the porous structure; a biomass input device operable to deliver biomass over the porous structure to form a biomass pile (See the buck loader on page 6, lines 9-12); a cover (geomembrane, 6) operable to allow the biomass to undergo an anaerobic fermentation; and a pump (19) operable to circulate water through the biomass by delivering water to the distribution pipe (11,12,13) and receiving water from the drain pipe after it has traveled through the biomass pile (See Figure 2).

Claim 12 differs by reciting that the system includes a lime input device operable to deliver lime to the porous structure.

The reference of Larson discloses that it is known in the art to provide the liquid distribution system in a biomass treatment system with a structure (50) for adding chemical supplements to the liquid distribution system.

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the system of the primary reference with a chemical addition system as taught by the reference of Larson for the known and expected result of controlling the pH of the liquid added to the biomass material. It is noted that the structure (50) of Larson is capable of holding and/or adding lime to the water introduced into the biomass pile.



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Claim 12 further differs by reciting that the system includes an air blower and distribution pipe for delivering air to the biomass material.

The reference of Chynoweth et al. discloses that it is known in the art of anaerobic composting to aerobically treat the waste pile with air when the methane production has been exhausted (See column 23, lines 15-45).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to aerate the waste pile of the modified primary reference for the known and expected result of further maturing the waste material as suggested by the reference of Chynoweth et al. While the reference only discloses that "air is injected through the underdrain", one of ordinary skill in the art would have recognized that an air blow and distribution pipe would be required and obvious for the known and expected result of injecting air into the waste material as suggested by the reference of Chynoweth et al.

Claim 12 further differs by reciting the use of a grid-like lattice structure.

The reference of Furuta discloses that it is known in the art of processing a biomass to employ a membrane cover (geomembrane (7)) and grid-like lattice (311) to support the membrane.

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the system of the modified primary reference with a roof structure as taught by the reference of Furuta for the known and expected result of providing an alternative means recognized in the art to achieve the same result, provide a roof for the biomass pile during processing.

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With respect to the use of a plurality of distribution pipes and pumps, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to provide a plurality of pipes and pumps based merely on considerations such as the size of the pile to be processed while maintaining the efficiency of the processing conditions.

Finally, while the reference of Marelius et al. discloses the use of bucket loaders for introducing biomass into the system, claim 12 requires the use of a conveyor belt device.

The reference of Wildenauer discloses the use of a conveyor belt (7) for introducing the biomass into the enclosure (1).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to employ a conveyor belt structure to introduce the biomass material into the system of the modified primary reference for the known and expected result of providing an alternative means recognized in the art to achieve the same result, introduce biomass material into the biomass treatment system.

In the absence of further positively recited structure, the system of the modified primary reference is considered to be structurally capable of sequentially subjecting the biomass to oxidative lime pretreatment and anaerobic fermentation in the formed enclosure since it includes all of the positively recited structures in claim 12.

With respect to claim 13, the system of the modified primary reference discussed above is capable of holding a lignocellulosic biomass as recited in claims 2 and 3.

With respect to claim 14, while the reference of Furuta is silent with respect to the structure of the support lattice, the use of I-beams is notoriously well known as a frame support member and its use in the system of the modified primary reference would have been obvious for

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the known and expected result of providing a well known construction element that is capable of providing a frame for supporting a roof structure.

With respect to claim 19, the lime input device suggested by the reference of Larson would be structurally capable of being operated in the manner recited in claim 19.

With respect to claim 20, the reference of Marelius et al. discloses reconditioning the leaching water with respect to bacteria-content (See page 6, lines 16-22) which meets the structure of an inoculum input device.

With respect to claim 21, the reference of Marelius et al. discloses the use of heat exchanger (31) to control the temperature of the water delivered to the distribution pipe.

With respect to claim 24, the reference of Marelius et al. discloses adding calcium carbonate to the water delivered to the biomass material (See page 6, line 32).

With respect to claim 88, the system of the modified primary reference is structurally capable of subjecting the biomass material to an aerobic process step.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Chynoweth et al.(US 5,269,634), Furuta (JP 08-245285) and Wildenauer (US 4,758,344) taken further in view of Still (DE 2057413).

The combination of the references of Marelius et al., Larson, Chynoweth et al., Furuta and Wildenauer have been discussed above.

Claim 15 differs by reciting that the cover membrane includes a foam layer.

The reference of Still discloses that it is conventional in the art to insulate the enclosure for a pile of biomass that is processed (See the English language abstract).

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In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the enclosure of the modified primary reference with an insulation layer, such as foam, for the known and expected result of ensuing that proper temperatures are maintained within the biomass processing enclosure.

11. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Chynoweth et al.(US 5,269,634), Furuta (JP 08-245285) and Wildenauer (US 4,758,344) taken further in view of Smit (EP 0 673 901).

The combination of the references of Marelius et al., Larson, Chynoweth et al., Furuta and Wildenauer have been discussed above.

Claims 16-18 differ by reciting that the system includes a sugar extraction device that includes a screw conveyor and weir.

The reference of Smit discloses that it is conventional in the art of processing biomass to provide a treatment system with a screw conveyor and weir structure (3) so as to extract water from the material to be processed (See column 3, lines 22-32)

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of the modified primary reference with an extraction device as suggested by the reference of Smit for the known and expected result of ensuring that the material to be processes is provided with the correct moisture content prior to processing the biomass material.

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12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Chynoweth et al.(US 5,269,634), Furuta (JP 08-245285), Wildenauer (US 4,758,344) taken further in view of Young et al.(US 5,591,635) and Lynn (US 3,973,043).

The combination of the references of Marelius et al. in view of Larson, Chynoweth et al., Furuta and Wildenauer has been discussed above.

Claim 23 differs by reciting that the system includes a gas scrubber for contacting the air delivered to the biomass pile with lime water slurry so as to remove carbon dioxide from the air.

The reference of Young et al. discloses that it is known in the art of biomass processing to control the carbon dioxide content of the aeration gas using a carbon dioxide scrubber (See column 5, line 56, to column 6, line 10).

The reference of Lynn discloses that it is known in the scrubbing art to employ lime water to remove carbon dioxide from a gas stream (See column 6, lines 5-16).

In view of these teachings, it would have been obvious to one of ordinary skill in the art to provide the system of the modified primary reference with a carbon dioxide scrubbing device for the known and expected result of controlling the carbon dioxide content of the aeration gas. The use of a lime-slurry would have been obvious for the known and expected results of employing an art recognized means for scrubbing carbon dioxide from a gas stream.

### ***Response to Arguments***

13. With respect to the rejection of Claims 1-8, 11 and 87 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), this rejection

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has been withdrawn in view of Applicants' amendments to the claims and related comments (See pages 10-11 of the response filed 10/19/2009). However note a new ground of rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al. and Larson. With respect to applicants' comments concerning the combination of the reference of Marelius et al. and Larson would not arrive at a system that is configured to subject the biomass to oxidative lime pretreatment and anaerobic fermentation, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

14. With respect to the rejection of Claims 9 and 87 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624) taken further in view of Hudgins et al.(US 6,024,513), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See page 11 of the response filed 10/19/2009). However note a new ground of rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al. and Larson.

15. With respect to the rejection of Claim 10 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624) and Hudgins et al.(US 6,024,513) taken further in view of Young et al.(US 5,591,635) and Lynn (US 3,973,043), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See page 12 of the response filed 10/19/2009). However note a new ground of

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rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al. and Larson taken further in view of Young et al. and Lynn.

16. With respect to the rejection of Claims 12-14, 19, 20 and 22 under 35 U.S.C. 103(a) as being unpatentable over Wildenauer (US 4,758,344) in view of Dibble et al.(US 4,668,388) or Norlund (US 4,952,230) and Taylor et al.(US 4,230,676) taken further in view of Furuta (JP 08-245285), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See pages 12-13 of the response filed 10/19/2009).

17. With respect to the rejection of Claims 12-14, 19-21, 24 and 88 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Furuta (JP 08-245285) and Wildenauer (US 4,758,344), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See page 13 of the response filed 10/19/2009). However note a new ground of rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al., Larson, Furuta and Wildenauer. With respect to applicants' comments concerning the combination of the reference of Marelius et al. and Larson would not arrive at a system that is configured to subject the biomass to oxidative lime pretreatment and anaerobic fermentation, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

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18. With respect to the rejection of Claim 15 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Furuta (JP 08-245285) and Wildenauer (US 4,758,344) taken further in view of Still (DE 2057413), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See page 14 of the response filed 10/19/2009). However note a new ground of rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al., Larson, Furuta and Wildenauer taken further in view of Still.

19. With respect to the rejection of Claims 16-18 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Furuta (JP 08-245285) and Wildenauer (US 4,758,344) taken further in view of Smit (EP 0 673 901), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See page 14 of the response filed 10/19/2009). However note a new ground of rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al., Larson, Furuta and Wildenauer taken further in view of Smit.

20. With respect to the rejection of Claims 22 and 88 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Furuta (JP 08-245285) and Wildenauer (US 4,758,344) taken further in view of Hudgins et al.(US 6,024,513), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See page 14 of the response filed 10/19/2009). However note a new



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ground of rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al., Larson, Furuta and Wildenauer.

21. With respect to the rejection of Claim 23 under 35 U.S.C. 103(a) as being unpatentable over Marelius et al.(WO 90/15031) in view of Larson (US 3,586,624), Furuta (JP 08-245285), Wildenauer (US 4,758,344) and Hudgins et al.(US 6,024,513) taken further in view of Young et al.(US 5,591,635) and Lynn (US 3,973,043), this rejection has been withdrawn in view of Applicants' amendments to the claims and related comments (See pages 14-15 of the response filed 10/19/2009). However note a new ground of rejection has been made using the newly cited reference of Chynoweth et al. with the references of Marelius et al., Larson, Furuta and Wildenauer taken further in view of Young et al. and Lynn.

### ***Conclusion***

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM H. BEISNER whose telephone number is (571)272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael A. Marcheschi, can be reached on 571-272-1374. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/William H. Beisner/  
Primary Examiner  
Art Unit 1797**

WHB